UNDP

# UNITED NATIONS DEVELOPMENT PROGRAMME

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DP/PROJECTS/7384

INDIANA UNIVERSITY
DEPT.

ENGLISH

APPROVAL OF UNDP ASSISTANCE TO A GLOBAL PROJECT

(GLO/91/G33)-Support to the Regional Ocean Training Programmes

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| Date of approval by the AC:[1/] | 28 October 1992 |
| Expected duration: | Thirty months |
| Proposed executing agency: | UNDP/OPS |
| Implementing agency: | International Ocean Institute, Malta |
| Proposed UNDP contribution: | $3 393 400 |
| Source of funds: | Global Environment Facility (GEF) |

## Project background

The above-mentioned project is intended to improve the management of oceans for the benefit of all and especially of developing countries, to improve the sustainable productivity of the marine environment and the contribution of developing countries in ocean management. The project strategy is to achieve this through the establishment of operational centres in India (for South Asia), Fiji (for the South Pacific), Colombia (for the Caribbean), and Senegal (for Africa).

Each centre will develop its own infrastructure according to the norms of the area and the abilities of the area to support it; and will have its own advisory council, composed of leading academic and expert specialists, public officials and leaders from the private sector. These councils will be responsible for assuring that the work of the centre is as relevant to the needs of the area as possible, for developing funding bases, and for attracting users (e.g., participants for courses and research links). Using these centres, the International Ocean Institute will revise its basic courses and develop new courses, provide institutional linkages with alumni, and coordinate inter-regional and inter-disciplinary research.

To bring developing countries into the forum of ocean management through training, the creation of local capacities in these four regions of the world to deal with marine and environmental problems, and through greater sustainability of resources and long-term conservation in the spirit of Agenda 21, UNDP assistance was requested under the present approval.

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1/ This Fact Sheet reflects the status of the project/revision at the time it was approved by the Action Committee; modifications to the project/revision may have occurred subsequently.

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## Description of project

The immediate objectives of the project are to: (a) develop self-sufficient (including financially) institutional infrastructures in cooperating educational institutions through the establishment of permanent full-time operational centres; (b) establish a global and regional alumni network, thus providing civil servants from developing countries a permanent forum through which to upgrade skills and to communicate; (c) generate applied policy-oriented research and allow regions to learn from work done in other pars of the world; (d) revise and update current training courses and develop new courses, as well as provide the modalities for the continuous generation of new courses and materials in the future; and (e) establish a forum in which public and private sectors can cooperate in the development of new resources.

## Inputs

UNDP will provide a subcontract to develop marine environment and coordinate inter-regional and inter-disciplinary research and training, as well as mission costs.

## Financial data

| | $ |
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| Mission cost | 50 000 |
| Subcontract | 2 398 500 |
| OPS overhead (6%) | 146 900 |
| Total | 2 595 400 |

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ENGLISH

**APPROVAL OF UNDP ASSISTANCE TO A PROJECT OF CAMBODIA**

**IPF:(1992-96) $105 319 000**

**(CMB/91/007) - Technical Assistance for the Rehabilitation of the Water Utilities of Phnom Penh and Sihanoukville**

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|---|---|
| **Date of approval by the AC:[1/]** | **4 November 1992** |
| **Expected duration:** | **36 months** |
| **Proposed executing agency:** | **The World Bank** |
| **Government implementing agency:** | **The Supreme National Council of Cambodia (SNC)** |
| **Proposed UNDP contribution:** | **$4 110 900 Source of funds: IPF** |
| **Total UNDP budget:** | **$4 110 900** |
| **Administrative and Operational Support Services (AOS):** | **$ 411 100 Agency: World Bank** |

**Project background**

**The water and power services were brought to a complete halt in Cambodia during the 1975-1979 period, and restored subsequently with facilities which had suffered significant damages. In the late 1980s only six civil Khmer engineers were left in the country. The reconstitution of a competent workforce at all levels, with the necessary qualifications and skills for the management and operations of the production and distribution systems is of utmost importance in the ongoing phase of rehabilitating the urban water and power services. Many of the existing staff have little or no exposure to modern technology and concepts, and have little familiarity with foreign language capabilities. Water services are essentially the decentralized responsibility of the Provinces. Thus, each municipality has so far retained separately established services for water - each with limited financial autonomy and experiencing difficulty to man its own departments, which are responsible for the operations and maintenance of the facilities. New investments are the responsibility of the municipality. Tariff levels do not cover the operating costs; and the lack of fuel and heavy municipal subsidies required to run the facilities have compelled authorities to reduce the level of service to much less than 24 hours.**

**In Phnom Penh, production of water (by pumping) is presently possible only for about 14 hours at full capacity, and at lower capacity during the rest of the day. The quality of water delivered to the distribution system has improved with the completion of chlorine disinfection systems and improved handling of the sedimentation and filtration functions of the water plant. These improvements are however not realized by the population as the quality of service on the distribution system is still conditioned: (i) by significant number of holes and leaks on the network made by the population to gain access to piped water at very low pressure; and (ii) by the limited number of hours of pumping. Despite the recent price increase of water, the latest methods of decentralized billing and revenue collection at the district level seem to have failed completely as demonstrated by the very limited amounts of money collected. As the municipality can only rely on consumer contributions to pay for diesel and electricity requirements, the water situation at the city level is not expected to improve unless significant changes in managerial procedures are designed and implemented. The tariff increase recently applied**

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to all consumer categories is reaching a point where price levels may become untenable to the lower levels of the population. The senior management of the water utility requires guided advice on the management of complex operations it is unfamiliar with.

In Sihanoukville, the supply of water has been for five hours a day since August 1991, with a high iron content in some areas making it improper for drinking use. The distribution network has suffered physical amputations of its pipelines in the city; and according to the water agency's staff would only be left with five km of the previous 15 km-long network. Connections on the network do not seem to exceed 800 despite earlier claims of a larger number, many of them illegal. The water service is provided free of charge to the population that is connected on the basis that the quality and quantity are inadequate and that there are no meters to charge users. Therefore, whatever service is now provided is heavily taxing the meagre financial resources of the municipality without any user contribution. The lack of any significant administrative and commercial capacity among staff and the restricted number of qualified persons calls for strengthening technical skills for water production and distribution.

## Description of project

The development objective of the project is to ensure the efficient and effective provision of water supply in a sustainable manner in the municipalities of Phnom Penh and Sihanoukville.

The immediate objective of the project is to enhance the capacity of the water utilities in Phnom Penh and Sihanoukville in the field of management, operation, maintenance, accounting, billing and collection systems.

## Inputs

UNDP will provide 24 work-months for a senior water supply management advisor, 24 work-months for a financial and accounting advisor, 24 work-months for a production superintendent, 24 work-months for a distribution superintendent, 20 work-months for an expert in the restructuring of the financial and accounting systems, 10 work-months for an in operations computerization, 168 work-months for administrative support personnel, 24 work-months for a UNV-maintenance technician, 24 work-months for a UNV- civil works technician, 24 work-months for a UNV-laboratory chemist, 24 work-months for a UNV-water distribution technician, 24 work-months for a UNV-stores manager, 24 work-months for a UNV-personnel manager, 24 work-months for a UNV-water production technician, 24 work-months for a UNV-water distribution technician; a subcontract to undertake the preparation of the institutional structure and regulatory framework for the water sector, a subcontract for the preparation of a human resources development plan; 288 work-months for fellowships abroad, 600 work-months for in-country fellowships, 23 work-months for study tours, in-service language training; expendable and non-expendable equipment; and miscellaneous costs.

## Financial data

| | $ |
|---|---|
| Personnel | 2 380 400 |
| Subcontract | 240 000 |
| Training | 413 000 |
| Equipment | 1 037 500 |
| Miscellaneous | 40 000 |
| Total | 4 110 900 |

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# UNITED NATIONS DEVELOPMENT PROGRAMME

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ENGLISH

**APPROVAL OF UNDP ASSISTANCE TO A PROJECT OF CAMBODIA**

IPF:(1992-96) $105 319 000

**(CMB/92/016) - Technical Assistance for the Rehabilitation of the Power Utilities in Phnom Penh and Sihanoukville**

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|---|---|
| Date of approval by the AC:[1/] | 4 November 1992 |
| Expected duration: | 36 months |
| Proposed executing agency: | The World Bank (WB) |
| Government implementing agency: | The Supreme National Council of Cambodia (SNC) |
| Proposed UNDP contribution: | $3 689 500 Source of funds: IPF |
| Total UNDP budget: | $3 689 500 |
| Administrative & Operational Support Services: | $ 368 900 World Bank |

## Project background

The water and power services were brought to a complete halt in Cambodia during the 1975-1979 period and restored subsequently with facilities which had suffered significant damages. In the late 1980s only six civil Khmer engineers were left in the country. The reconstitution of a competent workforce at all levels, with the necessary qualifications and skills for the management and operations of the production and distribution systems is of utmost importance in the ongoing phase of rehabilitating the urban water and power services. Many of the existing staff have little or no exposure to modern technology and concepts, and have little familiarity with foreign languages.

In Phnom Penh, power is supplied 24 hours a day although with frequent and unpredictable outages. Whereas the total installed generating capacity has not changed since the last two years, the available capacity has gone down sharply over the same period due to the poor condition of the equipment and technical limitations on continuous running. Accordingly systematic black-out is practised to keep the demand down within the limit of the effective generating capacity. The 15 kv distribution network has sufficient capacity; however, most of the sub-stations require rehabilitation especially for safety and reliability. The real burden is on the low voltage system which is either non existent or, of insufficient capacity and poor design.

In Sihanoukville, power was supplied from 18:00 hours to 24:00. It was proposed to extend the supply to 24 hours per day as of July 1992. There appears to be no problem in meeting the present demand on the system. Even when electricity supply becomes available 24 hours per day the generation capacity will exceed the demand. The major problem in Sihanoukville is the poor reliability of the power supply which is mainly due to the lack of tools for diesel maintenance, general electrical work and line work. To address this issue the Government requested UNDP assistance under the present approval.

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## Description of project

The development objective of the project is to ensure the efficient and effective provision of electric power supply in a sustainable manner in Phnom Penh and Sihanoukville.

The immediate objective is to enhance the capacity of the power utilities in Phnom Penh and Sihanoukville in the field of management, operation, maintenance, accounting, billing and collection systems.

Project activities will include: (a) increasing the operational capacity of the power plants and facilities in the two municipalities from the present 50 to 75 per cent; (b) rehabilitating the distribution systems through: ▸ the restoration of meters on all connections; ▸ the installation of adequate relays and safe switching equipment on all sub-stations; and, ▸ the reconstruction of the low voltage distribution system; (c) designing and implementing a system loss reduction programme so as to reduce the actual 60 per cent physical and commercial losses to 40 per cent of the total power production; (d) putting in place effective billing and collection systems to recover 80 per cent of commercial, industrial, diplomatic and domestic billing; (e) providing on-the-job-training to 40 engineers and unit managers in the preparation and application of operations, maintenance and monitoring procedures for the power utilities; (f) conducting vocational training in local institutions for 20 students who will be ready to enter the utilities after two years and for 20 others, one year later; (g) providing fellowships for higher studies abroad to 10 fresh graduates from local institutes to join the power utility manpower upon return; (h) finalizing and implementing the institutional restructuring and regulatory framework for the power sector; (i) presenting a report on the the medium-term priority investments needed in the power sector to the donor agencies for funding; (j) preparing a master plan for human resources development in the power sector; (k) putting in place a financial accounting system for the power utilities; and (l) implementing an operational and effective computerized data base and computerized billing system covering all major and medium size industrial and commercial customers.

## Inputs

UNDP will provide 24 work-months for a senior power supply management advisor, 24 work-months for a power system planner, 24 work-months for an energy planner, eight work-months for a revenue and collection advisor, 168 work-months for administrative support staff, 24 work-months for a UNV-power distribution engineer, 24 work-months for a UNV-power electrical engineer, 24 work-months for a UNV-diesel engine specialist in USSR machines, 24 work-months for a UNV-diesel engine specialist, 24 work-months for a UNV electrical maintenance engineer specialized in USSR equipment, 24 work-months for a UNV-electrical maintenance engineer, 24 work-months for a UNV-workshop superintendent, 24 work-months for a UNV-store superintendent, 24 work-months for a UNV-power distribution engineer; a subcontract to prepare the medium-term investment prioritization study for the power sector; 288 work-months for fellowships abroad, 600 work-months for in-country fellowships, 23 work-months for study tours, and in-service language training; expendable and non-expendable equipment; and miscellaneous costs.

## Financial data

| | $ |
|---|---|
| Personnel | 1 779 000 |
| Subcontract | 120 000 |
| Training | 413 000 |
| Equipment | 1 337 500 |
| Miscellaneous | 40 000 |
| Total | 3 689 500 |

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